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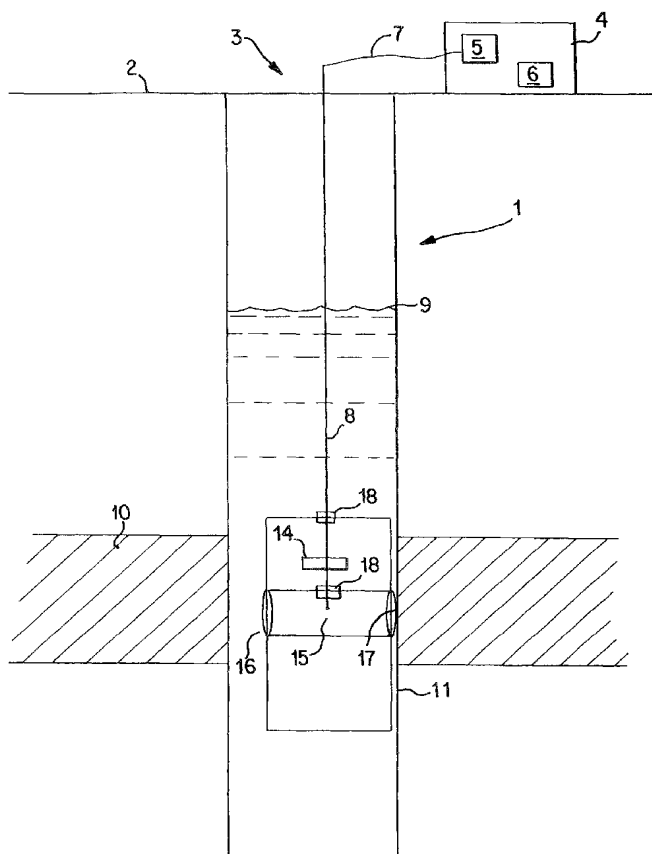
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(54) Title: IN-SITU DETECTION AND ANALYSIS OF COAL BED METHANE FORMATIONS



(57) Abstract: A measuring system for in-situ measure-
ments down a well by a spectrometer (4) is provided.
The spectrometer (4) includes a radiation source (5) and
a detector (6). A probe is optically connected to the
spectrometer (4) and includes an optical pathway (7) for
transmission of a radiation from the radiation source (5)
and at least a second optical pathway for transmission of a
characteristic radiation from a sample to the detector (6).
A positioner is provided to position the probe near a side
surface (11) of the borehole (3) and to optically couple the
optical pathways to the side surface (11), where the probe
is traversable up and down the well by way of a guide
operatively connected to the probe and to a fixed location
at the wellhead. By use of the apparatus and method a
concentration of methane or other substance of interest is
obtained, and thereby, a potential production of a coal bed
methane formation is obtained.

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,388,251 B1 (PAPANYAN) 14 May 2002, see entire document.	1-17
Y	US 4,994,671 A (SAFINYA et al) 19 February 1991, see entire document.	1-17
Y	US 4,490,845 A (STEINBRUEGGE et al) 25 December 1984, see entire document.	1-17
Y	US 3,859,851 A (URBANOSKY) 14 January 1975, see entire document.	1-17
Y	US 2,334,475 A (CLAUDET) 16 November 1943, see entire document.	1-17

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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